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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/883,120	06/15/2001	Keith C. Bentley	MS1-756US	8205

22801 7590 08/13/2004

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EXAMINER

TRUONG, LECHI

ART UNIT	PAPER NUMBER
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2126

DATE MAILED: 08/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/883,120

Applicant(s)

KEITH BENTLEY

Examiner

LeChi Truong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-8,10-21,23-28 and 30-33 is/are rejected.
- 7) ☒ Claim(s) 2,9,22 and 29 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-33 are presented for the examination.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-8, 10-21, 23, 28, 30-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirst (US. Patent 5,901,319) in view of Ritz (US. Patent 6,742,180 B1).
3. As to claim 1, Hirst teaches the invention substantially including: creating a data object of multiple components of the source operating system (col 2, ln 8-11), a data object for each of multiple components (a generic set of defines that includes generic function calls, col 2, ln 8-11), the source operating system (number of different operating system, col 2, ln 8-11/ ln 35-45), data object (sub-structures, e.g., definitions, function calls and constants, col 2, ln 34-46), generating a dependency model using the data object(col 2, ln 34-36), a dependency model(data structure, col 2, ln 34-52/ col 5, ln 40-51/ col 6, ln 8-20), identifying features (col 8, ln 5-10/ col 8, ln 51-64/ Fig. 5), features(instruction set ... as well as a function calls, col 8, ln 5-10/ Fig. 5), features in the source operating system(user inputs a set of instructions which address a user defined task. A variety of user defined tacks for each of operating system, col 6, ln 15-18 and col 7, ln

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15-20), to be included in the target operating system (col 2, ln 48-52), the target operating system (the operating system specific kernel level code, col 2, ln 28-31/ the kernel level code, col 2, ln 48-52), selecting components necessary to supports the identified features (col 9, ln 12-17/ col 8, ln 54-67 – col 9, ln 1), linking the selected components to build the target operating system (col 2, ln 48-52/ col 9, ln 19-24), the selected component(select the sub-structures and defines , col 4, ln 18-22).

4. Hirst does not explicit teach tracing for dependencies. However, Ritz teaches tracing (track/ tracked/ tracking as related to managing a plurality of operating system is improved, col 1,ln 42, col 2, ln 17, col 3, ln 35-38).

5. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of Hirst and Ritz because Ritz's tracking would enable a smooth transition from a first operating system to a second operating system environment wherein files associates with each operating system generated from a single source.

6. **As to claim 3**, Hirst teaches an independent links field for storing data to identify exports, Hard references and soft reference to or from a table entry (col 9,ln 14-17).

7. **As to claim 4**, Hirst teaches data object further comprise a name and a type (col 6, ln 9-11).

8. **As to claim 5**, Hirst teaches the choice data object comprise at lest two independent links, each independent link being an alternative choice of configuration (col 8,ln 37-48/ col 7, ln 44-46).

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9. **As to claim 6**, Hirst teaches connecting each unresolved data object reference to an export that resolves the reference until no more unresolved references can be resolved (col 6, ln 36-40).
10. **As to claim 7**, Hirst teaches Hard reference is resolved (process data structure and select therefrom the defines and definitions, respectively, associated with the operating system of the host device, col 6, ln 37-41).
11. **As to claim 8**, Hirst teaches multiple features of the source operating system including the feature data objects in the dependency model (col 8, ln 38-46).
12. **As to claim 10**, Hirst teaches tracing and selecting are only performed for references that are hard references (col 8, ln 34-36).
13. **As to claim 11**, it is an apparatus claim of claim 1; therefore, it is reject for the same reasons as claim 1 above.
14. **As to claim 12**, it is an apparatus claim of claim 1; therefore, it is rejected for the same reason as claim 1 above. In additional, Hirst teaches exports, hard references and soft reference (col 6, ln 10-12/-ln 37-40), connecting each reference to an export (col 5, ln 63-65 – col 6, ln 1-5/ fig. 3B).
15. **As to claim 13**, Hirst teaches each feature data object identifying a feature of the operating system and referencing one or more data objects (col 5, ln 63-67 – col 6, ln 1-5- ln 10-20/ Fig. 3A/B/C).
16. **As to claim 14**, Hirst teaches an object name, object type (col 6, ln 10-15).
17. **As to claims 15, 16, 17**, they are apparatus claims of claims 3, 6, 12; therefore, they are rejected for the same reasons as claims 3,6, 12 above.

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18. As to **claim 18**, it is an apparatus claim of claim 1; therefore, it is rejected for the same reason as claim above.

19. As to **claim 19**, Hirst teaches a data object for each component (col 2, ln 34-36), each data object potentially one or more exports that provide data to at least one other component, and one or more references that reference data from at least one other component (col 5, ln 40-51/ln 63-67 –col 6, ln 1-5).

20. As to **claim 20**, Hirst teaches hard data references are critical to the function of component ... soft references is not critical to the function of component (col 5, ln 55-57).

21. As to **claim 21**, Hirst teaches each independent link potentially having one or more exports ... one or more hard references (col 5, ln 40-46).

22. As to **claim 23**, it is an apparatus claim of claim 18; therefore, it is rejected for the same reason as claim 18 above.

23. As to **claim 28**, Hirst teaches identifying a select feature for a source operating system to be included in a target operating system (col 81, ln 24-27), identifying one or more first/ second source operating system components that are associated with the selected feature (col 81, ln 24-32/ col 8, ln 65-67-col 9, ln 1-10), selecting the one or more first/second operating system (col 81, ln 33-36), linking the selected source operating system to form a target operating system (col 81, ln 35-39/ col 2, ln 43-47/col 9, ln 18-22).

24. Hirst does not teach computer readable media. However, Ritz teaches media (media, col 5, ln 65-67).

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25. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of Hirst and Ritz because Ritz's media would provide nonvolatile storage of data, data structures, computer-executable instructions for the computer.

26. As to claim 30, Hirst teaches soft reference information ... being non-critical to the function of the component represented by the data object (the sub-structures of data structure is be selected for using to construct the kernel level code specific to particular operating system)(col 81, ln 25-28 and ln 35-41). Some sub-structures were not being selected and resolved to create the operating system, those sub-structures must be a soft references.

27. As to claims 31, 32, 33, they are an apparatus claims of claims 3,6, 1; therefore, they are rejected for the same reasons as claims 3,6, 1 above.

28. Claims 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirst (US. Patent 5,901,319)

29. As to claim 24, Hirst teaches an field for storing information about data from an operating system component represent by the data objects (col 8, ln 30-46), information about data (the sub-structures, definition, calls, and contants, col 8, ln 30-35), an operating system component (the window NT operating system, col 8, ln 32-33/ a number of different operating system, col 8, ln 37-40), a hard reference filed for storing hard reference information about data reference by the operating system (the data structure 38 can include a plurality or definitions, calls or constant for each of a plurality of operating system, col 6, ln 8-15/ Fig. 3 C/ col 2, ln 33-40), the reference component being critical to the function of the operating system component(

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linking the selected sub-structures and defines corresponding to the particular operating system to construct kernel level code specific, col 2, ln 44-47). Hirst does not explicit teaches the term export for information about data. However, Hirst teaches export for information about data (the command which further instructs the preprocessor to access and retrieve the proper header files for particular operating system, col 8, ln 45-48- ln 20-35).

30. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to apply the teaching of Hirst because Hirst's command which further instructs the preprocessor to access and retrieve the proper header files for particular operating system would generate operating system specific kernel level code from one or more data structures that are portable to and compatible with multiple different operating systems.

31. As to claim 25, Hirst teaches soft reference information ... being non-critical to the function of the component represented by the data object (the sub-structures of data structure is be selected for using to construct the kernel level code specific to particular operating system)(col 81, ln 25-28 and ln 35-41). Some sub-structures were not being selected and resolved to create the operating system, those sub-structures must be a soft references.

32. As to claim 26, Hirst teaches an object name, object type (col 6, ln 10-12).

33. As to claim 27, Hirst teaches an independent links field for storing data to identify exports, Hard references and soft reference to or from a table entry (col 9, ln 14-17).

34. *Allowable Subject Matter*

35. Claims 2, 9, 22, 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

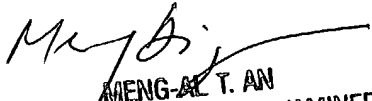
Any inquiry concerning this communication or earlier communications from the examiner should be directed to LeChi Truong whose telephone number is (703) 305 5312. The examiner can normally be reached on 8 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 703-305-9678. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIP. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIP system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

LeChi Truong

August 6, 2004


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